5

10

15

## 100

## Abstract of the Disclosure

ruled line extracting apparatus obtains circumscribed rectangles of pixel concatenation regions included in an input pattern, and calculates value of their heights. most frequent the Additionally, the apparatus integrates segments by ignoring a wild card segment, and calculates the most frequent value of height/width of extracted straight lines and segments structuring the straight line. Next, it performs a process for integrating/deleting straight lines using each threshold value based on the highest frequency value. Then, it checks/deletes a straight line according to a distribution of black pixels around the straight line, and recognizes the remaining straight lines as ruled line candidates.